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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,162	10/20/2003	Jacques Hoffmann	79203	6390

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CHICAGO, IL 60603-3406

EXAMINER

GARBER, CHARLES D

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/689,162

Applicant(s)

HOFFMANN ET AL.

Examiner

Charles D. Garber

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2856

3m

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 21-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 and 9-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20, drawn to leak test calibration arrangement with reference source cell, classified in class 73, subclass 40+.
- II. Claims 21-28, drawn to reference source cell with sealed volume, temperature affecting apparatus and control receiving input indicating fluid characteristic and controlling temperature by selectively heating and cooling fluid in the cell, classified in class 73, subclass 1.02.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination simply maintains a constant temperature and does not expressly require both heating and cooling. The subcombination has separate utility such as reference cell in a device proving or calibrating pressure sensors.

During a telephone conversation with John Flanery on 1/31/2005 a provisional election was made to prosecute the invention of Group I, claims 1-20. There was no discussion regarding intention to traverse so it will be assumed that Applicant intends to

traverse. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because many reference numbers are not sufficiently legible. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Plegat (US Patent 3,921,436).

Regarding claim 1, Figure 4 shows a test apparatus for testing the fluid properties of a fluid in "hollow bodies" such as a heat exchanger 2 connected to the apparatus. Standard 1 is a reference source cell with outlet 4 in fluid communication with the apparatus via duct 5. Figure 4 shows a control apparatus with adjustable pressure reducer 25 and pressure sensor 26 for controlling a parameter (pressure) of the fluid delivered to the standard volume. The standard volume may be considered a

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reference or calibration volume whose pressure is compared to that in the test body to determine if the test body is leaking.

As for claim 2, The standard 1 appears to be a substantially sealed fixed volume of fluid in fluid communication with the duct 5.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3-5, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plegat (US Patent 3,921,436) in view of Joseph et al. (US Patent 6,848,292).

Regarding claim 3, Plegat discloses the test body and standard should be maintained at the same temperature but does not expressly teach apparatus for controlling the temperature of the fluid in the standard or reference. This is because the ideal gas law teaches pressure varies with temperature and changes in temperature between the test and standard would interfere with a leak determination.

Joseph teaches vessels 15 and 18 for controlling the temperature of test and reference objects (pressure transducers) in a calibration test. The vessels provide a “means to circumvent the temperature sensitivity of the pressure standard against which the [object] is calibrated thereby improving the calibration accuracy of the system.”

It would have been obvious to one having ordinary skill in the art at the time the invention was made to control the temperature of test and reference objects in a pressure based calibration test to circumvent the temperature sensitivity of the pressure standard thereby improving the calibration accuracy of the system.

As for claims 4 and 5, Joseph teaches “calibrated digital thermometer” 23 for measuring temperature of the fluid in the vessels but does not expressly teach circuitry for controlling the temperature, however, Examiner takes Official Notice that circuits for controlling temperature are widely known in the art of temperature control and one having ordinary skill in the art at the time of the invention would have employed circuitry in order to maintain a predetermined temperature automatically.

As for claim 7, as discussed above with respect to claim 3 Joseph taught maintaining a substantially constant fluid temperature in the reference during leak of a device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to maintain the temperature constant for the reasons previously given.

As for claim 8, Plegat discloses manometer 8 which provides a visual signal responsive to the pressure in the testing duct.

***Allowable Subject Matter***

Claims 6, 9-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 9, the prior art does not further disclose or suggest the control apparatus responds to the pressure signal for controlling the temperature of the fluid in the reference source cell.

Claims 10-14 depending from allowable claim 9 are allowable for the same reason.

As for claim 6, the prior art does not further disclose or suggest the reference value varying with time in accordance with a predetermined function.

Claims 15-20 depending from allowable claim 6 are allowable for the same reason.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

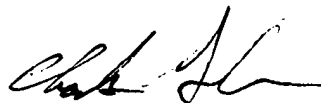
The additional references cited on the accompanying form PTO-892 though not cited above are provided to indicate other prior art leak test devices with reference or calibration volumes which include one or more features or limitations in common with the instant invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg



**CHARLES GARBER  
PRIMARY EXAMINER**